

INVESTIGATION OF THE EFFECT OF POSITIVE PERCEPTION AND MENTAL TOUGHNESS LEVELS ON MOTIVATION OF SUCCESS IN ELITE MOUNTAIN RUNNING ATHLETES*

Abdulselem Karharman^{1*}, Mehmet Bayansalduz²

¹Karaman Provincial Directorate of National Education,
Karaman, **TURKEY**

²Usak University, Faculty of Sport Sciences, Usak, **TURKEY**

*Corresponding author: a.selamkarharman@gmail.com

ABSTRACT

The aim of this study is to investigate the effect of 18 year old and over elite mountain running athletes' positive perception and mental toughness levels on success motivation participated in Turkey mountain running championship. The research group consists of a total of 166 athletes. In the study; Mental Toughness Scale (ZRS) adapted to Turkish by Erdogan (2016) and developed by Madrigal, Hamill and Gill (2013) and Positive Perception Scale (PSS) developed by Icekson and Pines (2013), adapted to Turkish by Akin and Kaya (2015) and Sports Specific Success Motivation Scale developed by Willis (1982) and adapted to Turkish by Tiryaki and Godelek (1997) were used. Data were edited in Microsoft Excel 2003 program and analyzed using Spss 20.0 for windows package program. Descriptive analysis methods were used to determine the distribution of personal information of the athletes involved; cross-table analysis and percentage table analysis were used. For the scales applied in the study; In order to test whether the subscales of the two scales show normal distribution, a normality test of 0.05 significance level was applied. In order to make comparisons between the sub-dimensions of both scales according to whether the data were distributed normally or not, for parametric (anova / independent sample t-test) or for nonparametric (Kruskal Wallis / Mann Whitney-U) statistic was used. Multiple regression analysis with 0.01 significance level was performed to determine the effect levels of independent variables on positive perception and sport-specific success motivation. The correlation between mental toughness and positive perception was determined by correlation analysis at 0.01

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significance level. According to the results of the study, it was seen that the mental endurance levels and positive perception levels of the athletes had a positive effect on the success motivation levels and the importance of positive perception and mental resilience factors in improving the performance of the athletes were revealed.

Keywords: Sport, Athleticism, Mental Toughness, Positive Perception, Success Motivation

INTRODUCTION

Sport is a phenomenon that includes physical and mental engagement that has been a part of life since the existence of human beings, has certain rules and is in life that gives pleasure to those who follow and do. At the same time, sports are a field of pursuit that large audiences follow with pleasure. This has enabled psychologists, coaches, sports organizations, and sports fans to strive to increase success in sports. Organizations and competitions are often organized so that athletes can easily demonstrate their performance. These events make the sport feel internationally effective, cause it to be seen as a propaganda tool, and encourage athletes to increase their performance by increasing competition (Türkmen, 2005).

Today, the level of competition in sports has reached the highest level and expectations from athletes have increased. Therefore, sportsmen are looking for ways to increase the performance of athletes more. In recent studies in the world of sports science, it is seen that psychological factors are important for success as well as physical factors. These factors are decision-making, problem-solving, empathy, assertiveness, aggression, anxiety level, as well as mental toughness and positive perception. Accordingly, although many factors are affecting the success in sports, it is thought that the positive perception and mental toughness levels of the mountain running athletes may affect the motivation of success, and it is believed that this effect can increase the performance of the athletes in the competition.

The main reason for athletes' mental toughness levels to be a lot of subjects in recent research is that their performance is directly affected by their mental toughness levels. The importance of mental toughness is that it is a versatile structure for successful performance in the sports environment by researchers and sports psychologists (Crust, 2008; Sheard, 2013). Although the difference in the abilities of the athletes and the variations in their physical skills may affect the results of the competition, it is determined by the positive or negative performance that the athletes perform on the day of the competition. There may be equality between athletes who physically struggle at the time of the competition. The

athletes with a higher level of mental abilities break this equality and become successful (Weinberg & Gould, 2015).

The phenomenon of positive perception is one of the newest topics in sports literature. This phenomenon enables one to look positively against the time they live in, to be valuable, and increase self-confidence (Icekson & Pines, 2013; as cited in, Akin et al., 2015). Positive psychology, which examines other factors that help people to be happy and happy in daily life, is concerned with the tendency of people to think positively about the events they experienced, self-sufficiency and positive emotions and thoughts (Linley et al., 2006). Sezgin and Kılınç (2012) stated that one of the causes of personal failure is the feeling of unqualified and inadequate in the face of difficulties faced by the person and in his socio-cultural relations.

Many theories have been developed by researchers to explain the phenomenon that allows athletes to participate in competitions at an elite level and to continue their performance for a long time. One of the theories developed is the motivation for success. The motivation for success explains why athletes strive in physical activities, why they strive to be successful in the face of difficulties, and why they continue for a long time (Ogülmüs, 2002). It is seen that when the motivation levels of the athletes are high, their future expectations are higher and they are more hopeful to meet them. If athletes experience too many failures, learned helplessness appears to occur (Aktop, 2002).

Mountain running is a worldwide sport and athletics discipline. There may be an altitude difference of up to 1200 meters between the starting point and the endpoint according to the type and distance of the competition in the mountain runs (TAF, 2018). The highlight of this discipline is that it is a competition where toughness and patience are tested until the end. While the athletes are struggling with the difficult conditions of nature, they enter into a difficult process both physically and mentally. In such a difficult competition, the importance of psychological factors as well as physicality becomes apparent in athletes. Accordingly, positive perception and mental toughness issues can be very important for the motivation of success in a sport where psychological factors such as mountain running are important.

METHODOLOGY

In the research, a method for descriptive scanning and relational scanning was used to reveal the current situation. The research population consists of athletes participating in the Turkey Mountain Running carried out in Akseki/Antalya by the Athletic Federation of Turkey on 09.06.2018. The questionnaire was applied to 166 of these athletes (56 women and 110 men).

In the research, the Mental Toughness Scale adapted to Turkish by Altıntaş and Koruc (2016), developed by Sheard et al (2009) to determine the mental toughness of athletes; the Positive Perception Scale developed by Icekson and Pines (2013) and adapted to Turkish by Akin and Kaya (2015) to evaluate individuals' positive perceptions of past time, current selves and human nature; and the Sports-Specific Motivation of Success Scale, developed by Willis (1982) and adapted to Turkish by Tiryaki and Godelek (1997), was used.

The Mental Toughness Scale is a 4-point Likert-type scale consisting of 14 items. The scale has three sub-dimensions: trust (6 items), control (4 items), and continuity (4 items). In the answer keys, each question is given a score of 1-4 (Sheard, 2013; as cited in Altıntaş & Koruc, 2016). The Positive Perception Scale is a 7-point Likert-type scale consisting of 8 items. There are three sub-dimensions in the scale: positive perception of past time (questions 1-2-4 and 7), positive perception of self (questions 6 and 8), and positive perception of human nature (questions 3 and 5). In the scale, each question is given between 1 and 7 points. The lowest score in the answer key is 8, while the highest score is 56 (Sag, 2016). The Sport-Specific Motivation of success Scale is a 5-point Likert-type scale consisting of 40 items and consists of 2 subscales. The first is the motive to show strength, measured by 12 items. The second is the motives for success. These motives are the motive to succeed, measured by 17 items, and to avoid failure, measured by 11 items.

FINDINGS

Table 1. Kolmogorov Smirnov Test of the Participants

| | Kolmogorov-Smirnov ^a | | |
|--|---------------------------------|-----|------|
| | Statistics | sd | p |
| Mental Toughness | ,067 | 166 | ,048 |
| Trust Dimension | ,123 | 166 | ,000 |
| Control Dimension | ,097 | 166 | ,001 |
| Continuity Dimension | ,114 | 166 | ,000 |
| Positive Perception | ,138 | 166 | ,000 |
| GZİPA | ,162 | 166 | ,000 |
| IDİPA | ,165 | 166 | ,000 |
| BİOA | ,205 | 166 | ,000 |
| Sport-Specific Motivation of success Scale | ,112 | 166 | ,000 |

According to Table 1, the Kolmogorov - Smirnov test was done. Accordingly, it is understood that the data did not show normal distribution.

In the result of the One-Sample Kolmogorov-Smirnov test, T-test and One-Way Anova Test were applied to the participants, since the analyzes to be made on

mental distribution, positive perception and motivation of success levels were normal distribution (parametric) ($P > 0.05$).

Table 2. *Mental Toughness Levels and Sub-Dimension Levels Score
Average of Athletes*

| | n | A.Avg. | Std. D. |
|------------------------|----------|---------------|----------------|
| Continuity Level | 166 | 11,0964 | 2,11554 |
| Trust Level | 166 | 14,8795 | 2,95992 |
| Control Level | 166 | 11,0422 | 2,46270 |
| Mental Toughness Level | 166 | 39,9036 | 5,92502 |

In Table 2, it is seen that the mental toughness levels and sub-dimension levels of the Elite Mountain Running athletes participating in the competition are above the average level.

Table 3. *Positive Perception Level and Sub-Dimension
Level Scores of Athletes*

| | n | A.Avg. | Std. D. |
|---------------------------|----------|---------------|----------------|
| About Past Time | 166 | 22,0060 | 5,18915 |
| About Human Nature | 166 | 10,5783 | 2,97920 |
| About Self | 166 | 11,2952 | 2,55193 |
| Positive Perception Level | 166 | 43,8795 | 9,36389 |

When Table 3 is examined, it can be said that the positive perception level and sub-dimension level averages of the Elite Mountain Running athletes participating in the competition are above the medium level.

Table 4. *Sports-Specific Achievement Motivation
Level Score Average of Athletes*

| | n | A. | Avg. | Std. D. |
|--|----------|-----------|-------------|----------------|
| Motive to Show Power | 166 | 44,0000 | 8,26896 | |
| Motive to Succeed | 166 | 60,8675 | 11,44396 | |
| Motive to Avoid Failure | 166 | 39,7349 | 7,98041 | |
| Sport-Specific Motivation of success Level | 166 | 144,6024 | 23,87820 | |

When looking at Table 4, the elite Mountain Running athletes participating in the contest, sport-specific motivation of success levels, average scores, and subdimension level average scores are seen to be above the middle level.

Table 5. Relationship Between Athletes' Mental Toughness Levels and Motivation of success

| | Mental Toughness | Motivation of success |
|---------------------|------------------|-----------------------|
| Pearson Correlation | 1 | ,485** |
| p | | ,000 |
| n | 166 | 166 |

(p<0,01)

According to Table 5, there is a positive significant relationship between the mental toughness levels and motivation of success of Elite Mountain Running athletes aged 18 and over ($p < 0.01$). As the mental toughness levels of athletes increase, their motivation for success increases.

Table 6. Relationship Between Positive Perception Levels of Athletes and Motivation of success

| | Positive Perception | Motivation of success |
|---------------------|---------------------|-----------------------|
| Pearson Correlation | 1 | ,356** |
| p | | ,000 |
| n | 166 | 166 |

(p<0,01)

According to Table 6, there is a positive significant correlation between the positive perception levels and motivation of success of Elite Mountain Running athletes aged 18 and over ($p < 0.01$). As the positive perception levels of athletes increase, their motivation for success increases.

Table 7. Relationship Between Mental Toughness Levels and Positive Perception Levels

| | Mental Toughness | Positive Perception |
|----------------------------|------------------|---------------------|
| Pearson Correlation | 1 | ,343** |
| p | | ,000 |
| n | 166 | 166 |

(p<0,01)

According to Table 7, there is a positive relationship between the mental toughness levels and positive perception levels of Elite Mountain Running athletes aged 18 and over ($p < 0.01$). As the mental toughness levels of athletes increase, positive perception levels also increase.

DISCUSSION AND RESULT

When the findings of the study were examined, it was observed that the average of the mental toughness level and sub-dimension level of athletes were above the medium level. When the literature is analyzed, in the study conducted by Demir and Türkeli (2019) on students of the faculty of sports sciences, it is found that the participants' mental toughness levels were above average and this result supported our findings. In another study that supports our findings, Yardımçı et al. (2017) conducted the study on the relationship between "loneliness levels of American football athletes and mental toughness levels in sports"; and in the study, it was observed that the mental toughness scale values in sports were above the average value. Also, it was determined that the study on hockey players by Nas and Temel (2019) supports our findings. When the findings of the study were examined, it was seen that there was no significant difference between the mental toughness levels and sub-dimension levels of the athletes participating in the study and their age, gender, years of doing sports, and educational status. It is observed that the study conducted by Yıldız (2017) with the aim of "analyzing the relationship between mental toughness and self-efficacy levels in athletes" also supports our findings. Also, the results of the study carried out by Kayhan et al. (2018), to determine the mental toughness levels of athletes interested in the team and individual sports branches also seem to support our findings.

When the findings of the research are examined, it is seen that the positive perception and sub-dimension levels of the athletes are above the average level. When the literature is examined, a limited number of studies have been found since the subject of positive perception in sports is still a new subject. In the study conducted by Temel and Karharman (2019), it is seen that handball players' positive perception levels and positive perception subscale levels support our findings. When the findings of the research were examined, it was seen that there was no significant difference between the positive perception levels and the sub-dimension levels of the athletes, the ages of the athletes - the years of doing sports, and the education status. In the study conducted by Temel and Nas (2019), it was seen that the positive perception levels and sub-dimension levels of athletes supported our findings, but a positive relationship was found between the year of doing sports and positive perception levels, and this result did not support our findings. When the findings of the study were examined, a significant difference was found between positive perception levels and sub-dimension levels and where they live, and it is seen that the average perception level of athletes living in villages and towns are higher than the others. It is thought that the reason for this is that the researched sport is mountain running and that the competition conditions are included in the daily life of these athletes. In the literature research,

the researches that reached the conclusion supporting our findings were reached. In the study conducted by Temel et. al. (2019) to determine the positive perception levels of handball players, a significant relationship was found between the place where they spent their lives and their positive perception levels, and this result was found to support our findings.

When the findings of the study were examined, it was seen that the athletes' sports-specific motivation level scores and the sub-dimension level scores were above average. When the literature is analyzed, it can be said that the results of the study that examined the achievement motivation levels and the sub-dimension levels of the taekwondo, boxing, and wrestling athletes conducted by Kusan (2014) support the findings of our study. Accordingly, although our participant group has a different branch, we can say that since the participants are elite athletes, this is an expected result for both studies. When the findings of the study were analyzed, a significant relationship was not found between the athletes' sports-specific motivation levels and their age, educational status, gender, and year of doing sports. Besides, a significant difference was found between the levels of motivation of success and where they live, and it is seen that the athletes living in villages and towns are at a higher level than others. It can be said that this result is an expected condition since the researched sports branch is a mountain running. When the literature is examined, it is seen that studies are supporting our findings. There are studies in the literature that support our findings. In his study, Bora (2013) reached a conclusion that supports our findings and it was observed that the variables of doing sports were not generally effective on the motivation of success. In another study that supports this result, Kılınc et al. (2012) concluded that the average motivation score of athletes did not change significantly according to the age of the sport. Also, Karamanoglu (2018) did not find any relation between the motivation of success and sub-dimension levels of the participants in terms of age variables, and as a result, it was found to support our findings.

When the findings of the study were examined, it was concluded that the mental toughness levels and positive perception levels of the athletes had a positive effect on the motivation levels of success. Also, a positive relationship was found between the positive perception levels of the athletes and their mental toughness levels. No studies covering our research topic were found in the literature review. A limited number of studies have been reached, especially since the subject of positive perception is new. Accordingly, the issues were handled separately and supported by the findings. In the study conducted by Yıldız (2017); it was seen that the level of mental toughness should be improved to increase the success of athletes, and this result supported our findings. In another study that supports our findings by Kurtulget et al. (2018) on "the role of passion and mental toughness in determining burnout in basketball players"; they stated that athletes

with high mental toughness can control their emotions and insist to show the performance required for success even if they have experienced the negativities they encounter in competitions and training. In a study by Temel and Karharman (2019), a positive relationship was found between positive perception and mental toughness, and this result supported our research findings.

As a result of the research, it has been seen that the positive perception and mental toughness levels of elite mountain running athletes positively affect their motivation levels of success. It is concluded that if the positive perception levels and mental toughness levels of the athletes increase, the motivation level of success will also increase.

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